

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
337	20R-6	LAKE	149	87
STA.		TO STA.		
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

Bench Marks

Square cut in median in IL Route 22, 250 m east of Milwaukee Avenue.
Elevation 198.647

Existing Structure

Two 1.35 m concrete pipe culverts 40.84 m long with reinforced concrete headwalls. Structure is to be removed and replaced with a double cell 2.1 m by 1.2 m reinforced concrete box culvert.
Horizontal cantilever wingwalls shall be provided.
Traffic to be maintained utilizing stage construction.

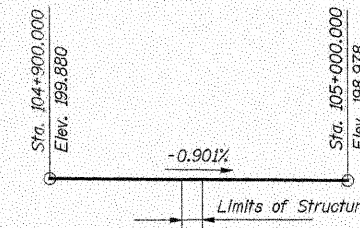
No salvage

Notes

All dimensions are in millimeters (mm) except as noted.

WATERWAY INFORMATION

Drainage Area = 2.1 km ²		Sta. 104+950								
Flood	Freq. Yr.	Q m ³ /s	Opening m ²		Nat. H.W.E. m		Head - m		Headwater Elev.	
			Exist.	Prop.	Exist.	Prop.	Exist.	Prop.	Exist.	Prop.
Design	10	2.5	1.8	3.5	197.92	0.08	0.00	198.00	197.68	
Base	50	5.1	2.1	3.9	198.02	0.45	0.00	198.47	198.02	
Overtopping	100	7.0	2.2	4.0	198.05	0.75	0.17	198.80	198.22	
Max. Calc.	500	10.3	2.3	4.3	198.10	1.34	0.46	199.44	198.56	



PROPOSED PROFILE GRADE
(Along PGL Roadway)

STATION 104+951.34
BUILT 200... BY
STATE OF ILLINOIS
F.A.P. RT. 337 SEC. 20R-6
F.A. PROJ.
LOADING MS18
STR. NO. 049-0233

NAME PLATE
See Standard 515001

INDEX OF SHEETS

- S1. General Plan
- S2. Culvert Details I
- S3. Culvert Details II
- S4. Temporary Concrete Barrier
- S5. Bar Splicer Details
- S6. Soil Boring Logs

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Stone Riprap, Class A4	m ²	48
Filter Fabric	m ²	48
Removal of Existing Structures	Each	1
Concrete Box Culverts	m ²	137.7
Reinforcement Bars	kg	15,890
Temporary Sheet Piling	m ²	73.9
Name Plates	Each	1
Bar Splicers	Each	55

*See Notes 6 and 7.
**See Special Provisions.

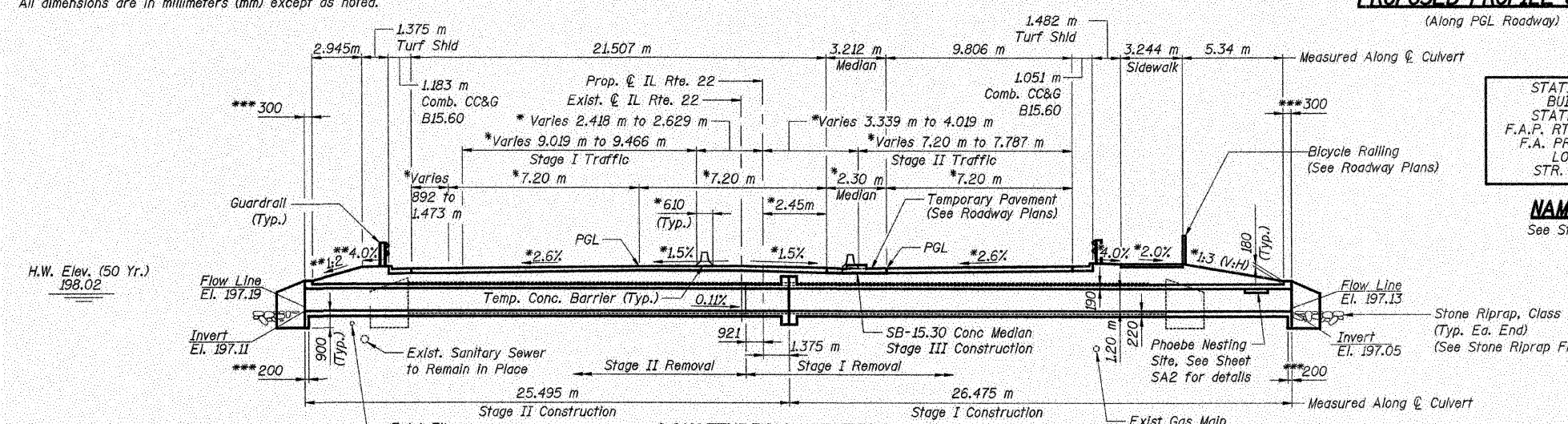
GENERAL NOTES:

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60. See Special Provisions.
2. No less than 2.0 m of Barrel shall be poured monolithically with the wingwalls.
3. All dimensions are in millimeters (mm) except as noted.
4. Precast alternative is not allowed.
5. All exposed concrete edges shall be chamfered 20 mm unless otherwise noted.
6. Dewatering for the construction of the Indian Creek Tributary shall be included in the cost of "Concrete Box Culverts".
7. Structural excavation required for the construction of the structure shall not be paid for separately but shall be included in the cost of "Concrete Box Culverts".

CURVE DATA

P.I. STA. = 104+841.324
Δ = 43°45'54" LT
R = 750.000 m
T = 301.232 m
E = 58.233 m
L = 572.883 m
S.E. = 2.6%
P.C. STA. = 104+540.092
P.T. STA. = 105+112.975

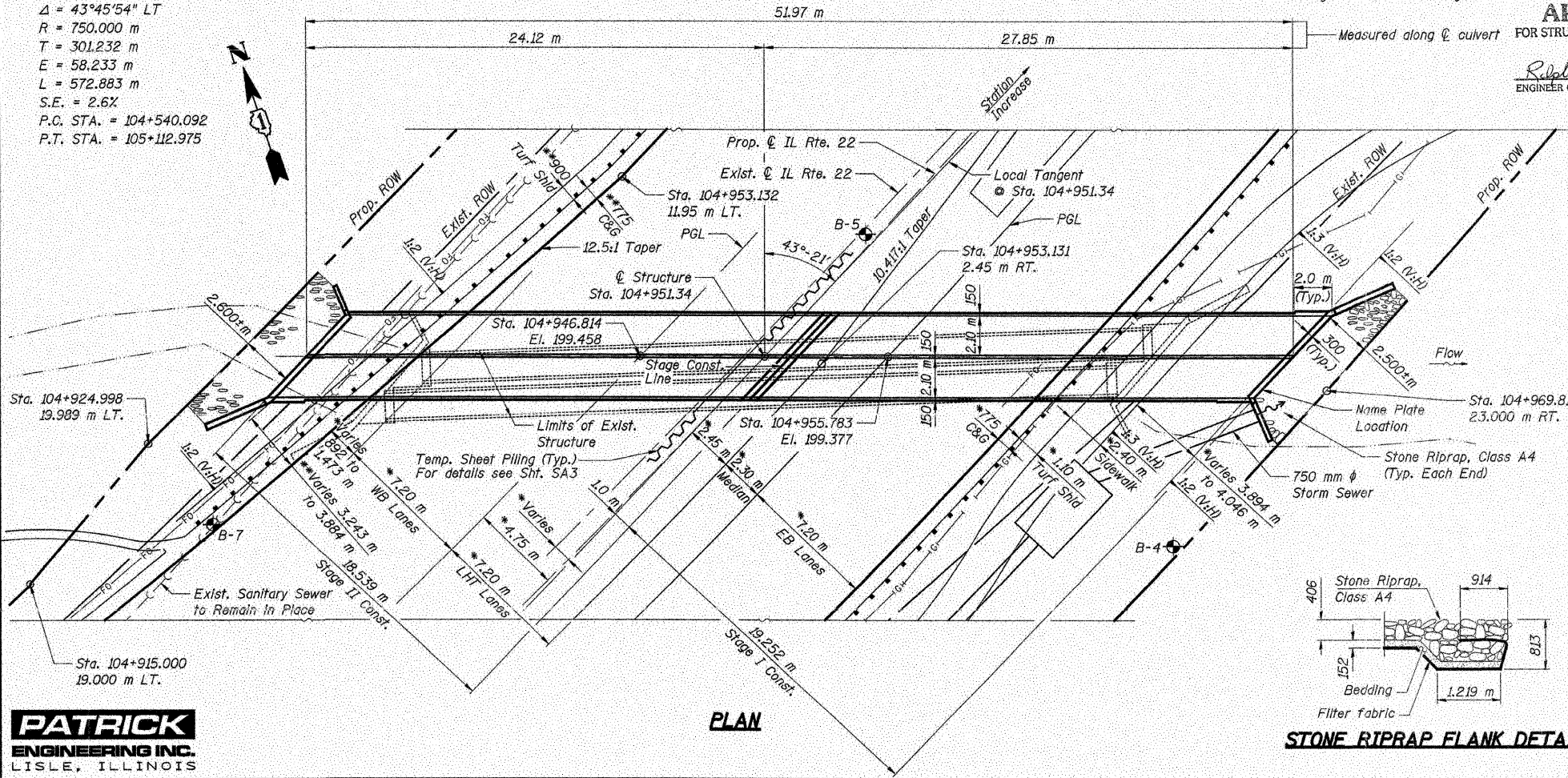
P:\Lislie\1001\917\LA0_Dr\Drawings\STRUCT\INDIAN_Creek_Tributary\01_culplan.dgn
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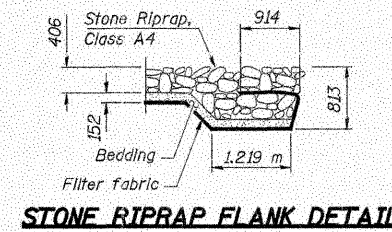
LONGITUDINAL SECTION

APPROVED
FOR STRUCTURAL ADEQUACY ONLY

Ralph E. Anderson, III
ENGINEER OF BRIDGES AND STRUCTURES



PLAN



STONE RIPRAP FLANK DETAIL

DESIGN SPECIFICATIONS

1996 AASHTO Standard Specifications for Highway Bridges and 1997-2000 Interims

LOADING MS18

Allowance for Future Wearing Surface = 2.4 kN/m²

DESIGN STRESSES

Reinforced Concrete - f'c = 24 MPa
Reinforcement - fy = 420 MPa

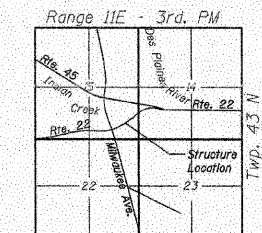
PATRICK ENGINEERING, INC.
PAUL M. LOPEZ, S.E.



Paul M. Lopez
PAUL M. LOPEZ, S.E.
081-005231

EXP 11-30-10

DATE 1-28-09



LOCATION SKETCH

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

GENERAL PLAN
ILLINOIS ROUTE 22 OVER
INDIAN CREEK TRIBUTARY
FAP 337 SECTION 20R-6
STRUCTURE NUMBER 049-0233
LAKE COUNTY STATION 104+951.34

SCALE: NONE
DATE: 1/28/2009
DRAWN BY: E. MROCZEK
CHECKED BY: G. HATLESTAD